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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/431,881	11/02/1999	TIMOTHY J. NICHOLS	P-8560.00	9343

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EXAMINER

SMITHERS, MATTHEW

ART UNIT PAPER NUMBER

2137

DATE MAILED: 03/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/431,881

Applicant(s)

NICHOLS, TIMOTHY J.

Examiner

Matthew B Smithers

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 November 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-69 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-69 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement filed February 2, 2000 has been placed in the application file and the information referred to therein has been considered as to the merits.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,249,705 granted to Snell and further in view of U.S. patent 6,026,165 granted to Marino et al.

Regarding claims 1, 15, 28, 42, 52, 56, 60, 64, 68 and 69 Snell teaches a distributed network system for use with implantable medical devices (IMDs) where the system uses network programmers (medical programmers) to communicate information between the IMDs and the network server (expert data center) (see Abstract and column 4, lines 42-61). Snell further teaches the use of security measures (encryption) between the communicating devices in order to maintain the appropriate protection of sensitive information (patient data) transmitted within the network (see column 7, lines

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40-54). Snell fails to specifically teach the use of encryption/decryption keys for protecting the sensitive information. Marino teaches secure communications in a wireless system where encryption/decryption keys are used by the communicating devices to securely transmit information between them (see column 7, line 14 to column 8, line 22). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Snell's distributed network system for use with implantable medical devices with Marino's secure wireless communications system in order to achieve a higher degree of security by associating and registering the encryption/decryption keys with each device. This process prevents an intruder (hacker) from gaining unauthorized access to the information transmitted between the devices [see Marino et al; column 2, line 40 to column 3, line 18].

Regarding claims 2, 16, 29, 52, 57, 61 and 65, Snell as modified teaches communications between the programmer and the implantable medical device (see Snell column 6, lines 19-38 and Figure 2, elements 104 and 120).

Regarding claims 3, 17, and 30, Snell as modified teaches communications between the programmer and the implantable medical device (see Snell column 4, lines 48-55).

Regarding claims 4, 18, and 31, Snell as modified teaches communications between the programmer and the implantable medical device (see Snell column 2, lines 32-38).

Regarding claims 5, 19, 32, and 43, Snell as modified teaches communications using telephone lines (see Snell column 3, lines 29-42).

Regarding claims 6, 20, 33, and 44, Snell as modified teaches communications using Intranets (see Snell column 3, lines 29-42).

Regarding claims 7, 21, 34, and 45, Snell as modified teaches communications using Internets (see Snell column 3, lines 29-42).

Regarding claims 8, 22, 35, and 46, Snell as modified teaches communications using wireless transmission networks (satellite systems)(see Snell column 3, lines 29-42).

Regarding claims 9, 23, 36, and 47, Snell as modified teaches communications using wireless transmission networks (global positioning systems) (see Snell column 3, lines 29-42).

Regarding claims 10, 24, 37, and 48, Snell as modified teaches communications using telephone lines, Intranets, Internets and wireless transmission networks (global positioning systems) (see Snell column 3, lines 29-42).

Regarding claims 11, 25, 38 and 49, Snell as modified teaches the use symmetric keys (see Marino column 7, lines 19-41 and column 7, lines 57 to column 8, line 23).

Regarding claims 12, 26, 39, and 50, Snell as modified teaches the use of asymmetric keys (see Marino column 7, lines 19-41 and column 7, lines 57 to column 8, line 23).

Regarding claims 13, 27, 40, 41, 51, 54, 58, 62 and 66, Snell as modified teaches the data record transmitted by the respective device has the transmitter's unique ID number and encryption key attached to it. Encrypting the record with the

transmitter's key forms a digital signature on the record (see Marino column 7, lines 19-41 and column 7, lines 57 to column 8, line 23).

Regarding claim 14, Snell as modified teaches communications between the programmer and the implantable medical device (see column 4, lines 55-61).

Regarding claims 55, 59, 63 and 67, Snell as modified teaches the data record transmitted by the respective device has the transmitter's unique ID number and encryption key attached to it. The decoding section uses the unique ID number to obtain the encryption key and sequence number for the transmitter and subsequently uses the information to verify (compare) the signature (see Marino column 7, lines 19-41 and column 7, lines 57 to column 8, line 23).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A. Faisandier (5,800,473) discloses a system for automatic updating of an implantable medical device.


B. Thompson et al (6,477,424) discloses a system for programming an implantable medical device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew B Smithers whose telephone number is (703) 308-9293. The examiner can normally be reached on Monday-Friday (9:00-5:30) EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory A Morse can be reached on (703) 308-4789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Matthew B Smithers
Primary Examiner
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